PE TITLE: Civil, Fire, Environmental, Shelter

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

February 1999

BUDGET ACTIVITY

PE NUMBER AND TITLE

5 - Engineering and Manufacturing Development

0604708F Civil, Fire, Environmental, Shelter

						-		-			
	COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	2,510	2,682	2,719	2,770	2,806	2,854	2,914	2,974	TBD	Continuing
2505	Aircraft Firefighting Suppression And Rescue	2,323	2,498	2,539	2,584	2,618	2,663	2,719	2,776	TBD	Continuing
2674	Tactical Shelters	187	184	180	186	188	191	195	198	TBD	Continuing
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

(U) A. Mission Description

This program funds the development, testing and evaluation of materials, equipment and procedures in the following areas:

- (1) Aircraft Fire Fighting, Suppression and Rescue and Civil Engineer (CE) Readiness, and (2) Tactical Shelters. Overall CE readiness is supported by multimedia training systems for Fire Fighting, CE readiness (Disaster Preparedness, Chem/Bio) and Force Protection (Explosive Ordnance Disposal (EOD)) by developing interactive training scenarios which simulate hazardous situations, allows both training and testing of response capabilities, and complements field training while reducing time, cost and direct exposure to hazards. Develops new concepts and technology applications for fire fighting, suppression and rescue to provide rapidly deployable capabilities to support bare base, contingency operating areas or main operating bases, and to reduce fire risks to personnel and resources.
- (2) Tactical Shelters is the USAF portion of a tri-service effort to develop standardized, low maintenance, highly survivable shelters and shelter accessories that are easily mobilized and compatible with air, sea and land transport systems. These products will effectively support high mobility aircraft support, command and control, communications, medical, and data processing units for the tactical and strategic forces. These shelters also optimize the latest enhancements of force protection technology.

(U) B. Budget Activity Justification:

This program is in budget activity five, Engineering and Manufacturing Development, because it takes emerging technologies and concepts and develops them for Air Force use.

Page 1 of 11 Pages

Exhibit R-2 (PE 0604708F)

RDT&E BUDGET ITEM JU	STIFICATIO	N SHEET ((R-2 Exhib	it)	February 1999
BUDGET ACTIVITY 5 - Engineering and Manufacturing Developr	nent	PE NUMBER AN 0604708F		Environme	ntal, Shelter
(U) C. Program Change Summary (\$ in Thousands)					
(U) Previous President's Budget (U) Appropriated Value	FY 1998 2,526 2,682	FY 1999 2,715 2,715	FY 2000 2,768	FY 2001 2,824	Total Cost Continuing
 (U) Adjustments to Appropriated Value a. Cong/General Reductions b. SBIR c. Omnibus or Other Above Threshold Reprogram 	-120 -52	-33			
 d. Below Threshold Reprogramming (U) Adjustments to Budget Years Since FY 1999 PB (U) Current Budget Submit/FY2000 PB 	2,510	2,682	-49 2,719	-54 2,770	Continuing
(U) Significant Program Changes:					
	Pa	ge 3 of 11 Pages			Exhibit R-2 (PE 0604708F)

DATE RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) February 1999 BUDGET ACTIVITY PE NUMBER AND TITLE **PROJECT** 5 - Engineering and Manufacturing Development 0604708F Civil, Fire, Environmental, Shelter 2505 FY 1998 FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 **Total Cost** Cost to COST (\$ In Thousands) Estimate Estimate **Estimate** Estimate Estimate Estimate **Estimate** Complete Actual 2505 Aircraft Firefighting Suppression And Rescue 2.323 2,498 2.539 2.584 2,618 2.663 2.719 2.776 TBD Continuing

(U) A. Mission Description

Develops improved civil engineering, fire fighting suppression and rescue equipment, materials, and methods to increase fire protection, readiness, force protection, mobility, and disaster preparedness effectiveness and training.

(U) FY 1998 (\$ in Thousands):

- (U) \$1,938 Continued courseware development of CE/MTS (Civil Engineer/Multimedia Training Systems).
- (U) \$ 137 Continued commercial technology exploitation.
- (U) \$ 248 Other technical support.
- (U) \$2,323 Total

(U) FY 1999 (\$ in Thousands):

- (U) \$2,099 Continued courseware development of CE/MTS.
- (U) \$ 144 Continued commercial technology exploitation.
- (U) \$ 255 Other technical support.
- (U) \$2,498 Total

(U) FY 2000 (\$ in Thousands):

- (U) \$2,224 Continued courseware development of CE/MTS.
- (U) \$ 140 Continued commercial technology exploitation.
- (U) \$ 175 Other technical support.
- (U) \$2,539 Total

Project 2505 Page 3 of 11 Pages Exhibit R-2A (PE 0604708F)

RDT&E BUDGET ITEM JUSTIFICATI	ON SHEET (R-2A Exhibit)	DATE Februa i	ry 1999
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604708F Civil, Fire, Environm	nental, Shelter	PROJECT 2505
 (U) FY 2001 (\$ in Thousands): (U) \$2,295 Continued courseware development of CE/MTS (Continued commercial technology exploitation. (U) \$ 150 Continued commercial technology exploitation. (U) \$ 139 Other technical support. (U) \$2,584 Total 	Civil Engineer/Multimedia Training Systems).		
(U) B. Project Change Summary - Description of Significant Changes: N	N/A		
(U) C. Other Program Funding Summary (\$ in Thousands) N/A			
(U) D. Acquisition Strategy: Courseware materials will continue to be deve	eloped, tested, modified and readied for producti	on and procurement by field u	ınits.
Project 2505	Page 4 of 11 Pages	Exhibit R-2A (PE 06047	708F)

RDT&E BUDGE	T ITEN	1 JUST	TIFIC.	ATIO	N S	HEET	(R-2	2A E	xhibi	t)		DA	TE F e	bruar	y 199	9
BUDGET ACTIVITY	D		4			NUMBER			· =		4				PR	DJECT
5 - Engineering and Manufactur	ing Dev	/eiopme	ent		00	604708	F CI	IVII, F	ire, Ei	nviron	menta	ıı, Sno	eiter		25	05
(U) E. Schedule Profile																
(6) 2. <u>sement 110</u>		FY 199				FY 19	999			FY 2	2000			FY 2	2001	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CE Multimedia Training Systems																
Complete C-130/KC-135	*															
Complete F-117/767			*													
Complete Confined Space Rescue							X									
Complete CRAF/F-22/HAZMAT							X									
Complete FY00 Priority List												X				
Complete FY01 Priority List																X
Fire Commercial Technology																
Complete Fire Fighter Cooling Vest	*															
Complete XL Computing				*												
Complete Smart Coat				*												
Complete Lifeguard				*												
Complete Mobile Fire Training System							X									
Complete AIM Safety Detectors							X									
Complete Help Mate Telephone System							X									
Complete FD On-Scene							X									
Complete FY00 AFOTEC Evaluation											X					
Complete FY01 AFOTEC Evaluation															X	
* = Completed Milestone																
X = Planned Milestone																
Project 2505				D	aaa 5 :	of 11 Pag	.05				Evi	nihit P	.2∆ (D⊏	06047	USE)	

RD	T&E PRO	GRAM EL	EMENT/F	PROJECT	COST	BREAKD	OWN (R-	3)	DATE F	ebruary 1	999
BUDGET ACTIVITY 5 - Engineerir	ng and Manu	ufacturing	Developme	ent		BER AND TITLE 708F Civil,		ronmental,	Shelter		PROJECT 2505
(U) A. Project C	ost Breakdown	(\$ in Thousan	<u>ids)</u>								
				FY 199	8	FY 1999	FY 2000	FY 2001			
(U) Contracts (U) A&AS Suppo (U) Other Govern (U) Materials/Equ. (U) Other Technic (U) Total	ment Agencies ipment			1,35 40 27 3 24 2,32	6 7 5 8	1,627 437 164 15 255 2,498	1,664 460 190 50 175 2,539	1,680 515 195 55 139 2,584			
(U) B. Budget Ac	equisition Histor	ry and Plannii	ng Information	ı (\$ in Thousan	nds)	,	,	,			
Performing Organ					<u></u>						
Contractor or Government Performing Activity	Contract Method/Type or Funding <u>Vehicle</u>	Award or Obligation <u>Date</u>	Performing Activity <u>EAC</u>	Project Office <u>EAC</u>	Total Prior to FY 1998	Budget	Budget FY 1999	Budget <u>FY 2000</u>	Budget FY 2001	Budget to Complete	Total <u>Program</u>
Product Developme											
Multimedia Training Sys	Mult	Cont	14,500	14,500	498	1,938	2,099	2,224	2,295	TBD	Continues
Fire Commercial Technology Exploitation	Mult	Cont	1,500	1,500	250	44	40	30	35	TBD	Continues
Subtotal			16,000	16,000	2,598	1,982	2,139	2,254	2,330	TBD	Continues
Support and Manaş Various	gement Organiza	ations	1,950	1,950	442	248	255	175	139	TBD	Continues
Test and Evaluation Various	n Organizations		750	750	70	93	104	110	115	TBD	Continues
Project 2505				Pa	ge 6 of 11	Pages		Exhi	bit R-3 (PE	0604708F)	

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)

DATE

February 1999

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and Manufacturing Development

0604708F Civil, Fire, Environmental, Shelter

2505

Government Furnished Property: None

(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)

Performing Organizations:

Contractor or	Contract										
Government	Method/Type	Award or	Performing	Project	Total						
Performing	or Funding	Obligation	Activity	Office	Prior to	Budget	Budget	Budget	Budget	Budget to	Total
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	FY 1998	FY 1998	FY 1999	FY 2000	FY 2001	Complete	<u>Program</u>
Subtotal Product De	evelopment				2,598	1,982	2,139	2,254	2,330	TBD	Continues
Subtotal Support ar	nd Management				442	248	255	175	139	TBD	Continues
Subtotal Test and E	Evaluation				70	93	104	110	115	TBD	Continues
Total Project					3,110	2,323	2,498	2,539	2,584	TBD	Continues

Project 2505 Page 7 of 11 Pages Exhibit R-3 (PE 0604708F)

RDT&E BUDGET IT	EM JUS	TIFICAT	ION S	HEET (R	-2A Exh	ibit)		DATE Fe	bruary 19	999
BUDGET ACTIVITY	PE	NUMBER AND	TITLE				F	PROJECT		
5 - Engineering and Manufacturing [0	0604708F Civil, Fire, Environmental, Shelter								
COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate		FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
2674 Tactical Shelters	187	184	1	80 186	188	191	195	198	TBD	Continuing

(U) A. Mission Description:

Provides reliable, cost effective tactical shelters required to ensure the success of Air Force missions, provides Air Force membership in the DOD Tactical Shelter Program, and provides technology insertion for shelter development.

(U) <u>FY 1998 (\$ in Thousands):</u>

- (U) \$75 Continue research, development and acquisition of the Modular Extendible Ridged Wall Shelter (MERWS)
- (U) \$102 Establish capability to evaluate shelter design and performance and perform system integration analysis
- (U) \$ 10 Provide direct feedback and ensure Air Force requirements identified to Joint Committee for Tactical Shelters (JOCOTAS) and American Society of Testing Materials (ASTM)
- (U) \$187 Total

(U) <u>FY 1999</u> (\$ in Thousands):

- (U) \$72 Continue research, development and acquisition of the Modular Extendible Ridged Wall Shelter (MERWS)
- (U) \$102 Establish capability to evaluate shelter design and performance and perform system integration analysis
- (U) \$ 10 Provide direct feedback and ensure Air Force requirements identified to JOCOTAS and ASTM
- (U) \$184 Total

(U) <u>FY 2000 (\$ in Thousands):</u>

- (U) \$ 66 Continue research, development and acquisition of composite tactical shelter.
- (U) \$ 102 Establish capability to evaluate shelter design and performance and perform shelter integration analylsis.
- (U) \$ 12 Provide direct feedback and ensure Air Force requirements are identified to JOCOTAS and ASTM.
- (U) \$ 180 Total

Project 2674 Page 8 of 11 Pages Exhibit R-2A (PE 0604708F)

DATE RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) February 1999 **BUDGET ACTIVITY** PE NUMBER AND TITLE PROJECT 2674 5 - Engineering and Manufacturing Development 0604708F Civil, Fire, Environmental, Shelter (U) FY 2001 (\$ in Thousands): Continue research, development and acquisition of composite tactical shelter. (U) \$ 73 Establish capability to evaluate shelter design and performance and perform shelter integration analylsis. (U) \$ 102 Provide direct feedback and ensure Air Force requirements are identified to JOCOTAS and ASTM. (U) \$ 11 Total (U) \$ 186 (U) B. Project Change Summary - Description of Significant Changes: N/A (U) C. Other Program Funding Summary (\$ in Thousands) N/A (U) **D.** Acquisition Strategy: Tactical shelters development will continue to support Initial Deployable Kitchen (IDK) Program (U) E. Schedule Profile N/A Project 2674 Page 9 of 11 Pages Exhibit R-2A (PE 0604708F)

RE	T&E PROC	GRAM EL	EMENT/P	ROJEC	CT COS	ST BF	REAKD	OWN (R-	3)	DATE F	ebruary 1	999
BUDGET ACTIVITY 5 - Engineeri	ng and Manu	ıfacturing	Developme	nt			AND TITLE F Civil.	Fire. Envi	ronmental,	Shelter		PROJECT 2674
<u> </u>					1 33			-				
(U) A. Project C	ost Breakdown (\$ in Thousan	ds)									
· · ·			_	FY	1998	FY :	199 <u>9</u>	FY 2000	FY 2001			
(U) MERWS (mo	dular extendible i	ridged wall she	elter)		75		72					
(U) Composite Sh					0		0	66	73			
(U) Shelter design(U) JOCOTAS pr		d analysis			102 10		102 10	102 12	102 11			
(U) Total	ogram				187		184	180	186			
(U) B. Budget A	cquisition Histor	y and Plannii	ng Information	(\$ in Thou	<u>ısands)</u>							
Performing Orga	nizations:											
Contractor or	Contract		D 6 .									
Government Performing	Method/Type or Funding	Award or Obligation	Performing Activity	Project Office	Tota Prior		Budget	Budget	Budget	Budget	Budget to	Total
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	EAC	EAC	FY 19		FY 1998	FY 1999	FY 2000	FY 2001	Complete	Program
Product Developm	nent Organization	<u>s</u>										
MERWS Pgm Composite	Multiple	Multiple				*	75	72	0	0	TBD	Continues Continues
Shelter Dev	Multiple	Multiple				*	0	0	66	73	TBD	
Shelter design, performance												Continues
and analysis	Multiple	Multipe				*	102	102	102	102	TBD	
JOCOTAS Pgm	Multiple	Multiple				*	10	10	12	11	TBD	Continues
Support and Mana	igement Organiza	tions				*	0	0	0	0	T .T / A	
N/A						4	0	0	0	0	N/A	
Project 2674					Page 10 o	f 11 Pag	ges		Exhi	bit R-3 (PE	0604708F)	

RD	T&E PROG	RAM EL	EMENT/P	ROJEC	T COST B	REAKDO	OWN (R-	3)	DATE F	ebruary 1	999
BUDGET ACTIVITY 5 - Engineeri	ng and Manu	facturing I	Developme	nt		R AND TITLE 8F Civil, I	Fire, Envi	ronmental	, Shelter		PROJECT 2674
Contractor or Government Performing <u>Activity</u>	Contract Method/Type or Funding <u>Vehicle</u>	Award or Obligation <u>Date</u>	Performing Activity <u>EAC</u>	Project Office <u>EAC</u>	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget <u>FY 2001</u>	Budget to Complete	Total <u>Program</u>
Test and Evaluation	on Organizations				*	0	0	0	0	N/A	N/A
(U) B. <u>Budget A</u> Government Furn			g Information	Continued	(\$ in Thousand	<u> s)</u>					
Item <u>Description</u>	Contract Method/Type or Funding <u>Vehicle</u>	Award or Obligation <u>Date</u>	Delivery <u>Date</u>		Total Prior to <u>FY 1998</u>	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget <u>FY 2001</u>	Budget to Complete	Total <u>Program</u>
Subtotal Product E Subtotal Support a Subtotal Test and	and Management				16,310 0 0	187 0 0	184 0 0	180 0 0	186 0 0	TBD TBD TBD	Continues Continues
Total Project					16,310	187	184	180	186	TBD	Continues
* = Prior year fund	ling was not aggre	gated in these	categories and	therefore on	ly Subtotal/Tota	ıl can be shov	wn for "Prior	to FY1998."			
Project 2674				1	Page 11 of 11 Pa	iges		Exh	nibit R-3 (PE	0604708F)	